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14. ABSTRACT In the Navy's current austere financial environment, the Composite Warfare Commanders (CWCs) are being forced to do more with less. Reduction in funding translates to fewer assets and infrequent training opportunities yielding inadequacy in specific warfare areas under the CWC's purview. Specifically, with a diminishing cruiser fleet and sporadic career-long training, Air and Missile Defense Commanders (AMDC) are struggling to keep up with the increasingly complex art of the mission set. This paper's focus is to discuss other options for the CWC to fill the role by determining the best and most qualified person for the job. The recommendations therein lend themselves to a cadre of individuals who have spent the majority of their careers practicing command and control of the many layers and multiple assets in the game of AMD. The result of such an approach offers the CWC the flexibility to shift the weight of effort for limited resources in many potentially diverse scenarios.					
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Person or Platform: A New Look at Selecting the Air and Missile Defense Commander

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract

In the Navy's current austere financial environment, the Composite Warfare Commander (CWC) is being forced to do more with less. Reduction in funding translates to fewer assets and infrequent training opportunities yielding inadequacy in specific warfare areas under the CWC's purview. Specifically, with a diminishing cruiser fleet and sporadic career-long training, Air and Missile Defense Commanders (AMDC) are struggling to keep up with the increasingly complex art of the mission set. This paper's focus is to discuss other options for the CWC to fill the role by determining the best and most qualified person for the job. The recommendations therein lend themselves to a cadre of individuals who have spent the majority of their careers practicing command and control of the many layers and multiple assets in the game of AMD. The result of such an approach offers the CWC the flexibility to shift the weight of effort for limited resources in many potentially diverse scenarios.

Introduction

The Composite Warfare Commander (CWC) doctrine is designed to provide operational and tactical command and control (C2) guidance for the proper employment of U.S. Navy units in multiple warfare areas. Information operations, sea combat, strike, and air and missile defense (AMD) each has a commander responsible for ensuring mission accomplishment in the respective area. Of the four, only the AMDC is specifically assigned based on a platform. The Ticonderoga-class cruiser (CG) is the best-suited ship for the mission, and, predominantly, its commanding officers are designated as the AMDC. Considering the increased technological aspects of the mission coupled with the improving capabilities of threat nations, selecting an AMDC solely on platform capabilities is a faulty approach for two reasons: (1) The primary AMD asset availability is shrinking; (2) the training afforded CG commanding officers coupled with an inability to focus solely on AMD is inadequate to combat the complexity of the mission. When viewed in this light, the CWC is better served to choose an AMDC based on the best person for the job instead of defaulting to the owner of the most capable platform.

Doctrinal Background

The CWC construct provides the framework for the organization of forces and the application of commander's intent. It is designed with "flexibility of implementation, reinforced by clear guidance to subordinates, and use of command by negation [as the] key to decentralized control of the tactical force. [It] enables offensive and defensive combat operations against air, surface, undersea, electronic and land-based threats."¹ The particular warfare commanders under the construct include a Strike Warfare Commander, a Sea Combatant

¹ U.S. Department of the Navy, *Composite Warfare Doctrine NWP 3-56* (Norfolk, VA: CNO, 2010), 1-14.

Commander, an Information Operations Warfare Commander, and an AMDC.² The latter, even in name, serves as a defensive element as opposed the remaining three, which have elements of offensive focus as well.

“AMD consists of those measures taken to defend a maritime force against attack by airborne weapons launched from aircraft, ships, submarines, and land-based sites.”³ There are 30 unclassified functions typically assigned to the ADMC, which include, but are not limited to pre-planned responses, weapons control status, air surveillance and defense plans as well as contact identification criteria and weapons release authority. The NWP 3-56 states that the “AMDC should normally be assigned on the most capable or experienced AMD ship that provides this level of support. Capable ship classes include [CGs], guided-missile destroyer (DDG), CVN, LCC, LHA, LHD, or amphibious transport dock (LPD)-17.”⁴ It goes on to discuss that “skillful, dynamic, and aggressive commanders and coordinators whose judgment and actions earn the CWC’s confidence are central to the composite warfare construct.”⁵ Historically, the most typical course of action is for the CWC to appoint a commanding officer of a CG as the AMDC.

Framing the Problem

The primary issue with maintaining the status quo of AMDC selection is the distinction between choosing a warfare commander simply because he owns the best-suited platform versus selecting the most qualified individual to perform the role. The former is an easier concept to address than the latter.

² Ibid, 1-17.

³ Ibid, 3-1.

⁴ Ibid.

⁵ Ibid, 1-15.

From a doctrinal standpoint, there is no question that the Navy views the CG as the most capable AMD platform. It is designed from the keel up for anti-air warfare and missile defense.⁶ The cornerstone of its capabilities is the AEGIS weapons system with the AN/SPY-1 phased-array radar. At its conception, the AEGIS combined the advanced radar with a robust fire control system and the Standard Missile (SM) family of weapons. Add the communications suites and multiple controller consoles, and it is easy to see why the Ticonderoga-class cruiser comes out on top for this mission. With the advent of the Arleigh Burke-class guided-missile destroyer (DDG) came a more improved and modernized AEGIS system equipped with the SPY-1D radar. At first glance, the DDG looks to be perfect for replacing the aging CG fleet and assuming the role as the primary AMDC platform. However, some significant issues still exist.

The capacity and survivability of the CG alone keep it in the forefront of the AMD mission. Destroyers have been used in the past; however, the inability to add staff coupled with the reduced C2 equipment makes them second to the cruiser. The Ticonderoga-class CG's have 20 consoles in their Combat Information Center while the Arleigh Burke-class destroyers only have 16.⁷ As well, the SPY-1 radar aboard the CG's has two arrays and one transmitter on each of the two deckhouses allowing for more flexibility in the case of battle damage, while the DDG's have all four arrays and only one transmitter on one deckhouse.⁸ A simple one-for-one swap is not feasible without a reduction in capability for defense. However, such a situation must be entertained when considering that there are only 22 commissioned

⁶ Steve J. Coughlin. "Recapitalize the Ticonderoga Class," *U.S. Naval Institute Proceedings* 141, no. 12 (2015), Academic Search Premier (111484837).

⁷ Christopher P. Cavas. "US Navy's Cruiser Problem-Service Struggles Over Modernization, Replacements." *Defense News*, July 7, 2014, <http://www.defensenews.com/story/defense/archives/2014/07/07/us-navy-s-cruiser-problem-service-struggles-over-modernization-replacements/78531650/>.

⁸ Ibid.

cruisers in the fleet. As a comparison, there are currently 62 destroyers with an additional fourteen under construction or under contract.⁹

The CG fleet is struggling to maintain its numbers, and an honest assessment of the situation points toward a requirement to look elsewhere for platforms that can perform the same missions. Without a plan to extend the life or modernize any of the CG's, the concern is that the current inventory will reach service life expectancy by the late 2020's.¹⁰ Budget cuts have derailed the Navy's plan to develop the CG(X) cruiser back in 2010 prompting a reevaluation of options.¹¹ The proposed follow-on plan calls for the deactivation of our newest 11 cruisers for subsequent modernization. While letting the remaining 11 to live out their original expectancy, the gradual replacement of rebuilt CG's allows the Navy to extend the life of the cruiser fleet to around 2040.¹² The surface warfare community expects to begin fielding a new replacement ship around 2035.¹³

The diminished numbers leave one CG per Carrier Strike Group (CSG) to perform the AMD mission set. Ideally, in a continuous conflict, two AMD-capable ships are preferred to allow for a 12-hour daily rotation between the vessels. In that scenario, the cruiser can serve as the primary AMD platform with a DDG serving as the backup.¹⁴ Unfortunately, fewer vessels mean less flexibility by minimizing the number of potential platforms available for the mission. The CWC must bridge the gap by maintaining flexibility through innovation and search for other logical ways to organize forces. Having an AMDC not tied to one specific ship must be considered.

⁹ The US Navy Fact File- Destroyers: DDG, last modified January 13, 2016, http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=900&ct=4.

¹⁰ Cavas, "US Navy's Cruiser Problem."

¹¹ Ibid.

¹² Coughlin, "Recapitalize the Ticonderoga Class."

¹³ Ibid.

¹⁴ Cavas, "US Navy's Cruiser Problem."

Since the technological capabilities of the different platforms are cut and dry, the more difficult task for the CWC is determining *who* should fill the AMDC role. Turning back to the NWP 3-56, some additional considerations including “[the] numbers of watch standers and their training, the operating environment (e.g., EMCON restrictions), and additional command responsibilities should also be used.”¹⁵ Throughout the document, there is no mention of a requirement to fill the role with a ship’s commanding officer. In fact, the only specific reference of a CO regards the backup role. As stated, “[t]he alternate AMDC should be assigned to a second AMD ship’s commanding officer not already assigned warfare or functional group command responsibilities.”¹⁶

Taken at face value, the omission is probably a simple oversight, but the mere fact that it is not specifically addressed, whether intentional or not, leads one to conclude that the historical choice of a cruiser CO as the AMDC is due to the common trap of conventional thinking. The original reasoning was sound; however, the situation has not been readdressed since its inception. That is just how the Navy has always done it. When focusing on the NWP-stated factors of the “operating environment and additional command responsibilities,” the commanding officer of a CG may not be the best choice available.

Cruisers are considered major command and are led by an O-6 with previous experience as a “skipper” on smaller vessels such as DDGs. This individual would typically have at least some previous experience in a role such as the Force Tactical Actions Officer (TAO) where he or she can train to the science and art of air defense. Such exposure, however, is not a requirement. For a DDG, the CO is typically an O-5 on a first command tour who must

¹⁵ U.S. Department of the Navy, *Composite Warfare Doctrine NWP 3-56*, 3-2.

¹⁶ Ibid.

spend the majority of his or her time tackling the numerous responsibilities of just being “skipper.”

One option to combat the reduction in CG numbers is to use a DDG under the command of an experienced O-6 giving that ship the appropriate leadership and experience to act as the primary AMDC. Unfortunately, the command opportunities for DDGs are limited enough as it is without an additional requirement to replace some O-5 COs with an O-6 major command player. The career impacts alone make this option unpalatable. Less O-5s with command experience means less competition for O-6 resulting in a reduction in quality of the surface community’s major command pool.

Although a brief and simple example of a solution, the question continues to be answered from a platform-centric mindset. In the Navy’s defense, it just seems logical that if the most capable ship is to be the primary AMD vessel, then its commanding officer must be the AMDC. On the contrary, looking at the many facets of the mission in aggregate should point toward choosing an individual with the most focused experience for the job.

The question is not about the ability of a cruiser’s CO to handle the task. With enough training and time, it is possible. The fact remains that the AMDC mission is growing so technologically sophisticated that it requires someone who can dedicate all focus toward the mission without the additional responsibilities of being a “skipper” as well. In certain mission sets, it makes more sense not to choose the commanding officer of a ship as the primary warfare commander by default.

For example, the CO of an aircraft carrier is not the strike warfare commander or an air wing employment expert. As well, the captain of an amphibious assault ship is not expected to be the expeditionary warfare commander. Both cases have separate individuals onboard their

vessels whose sole purpose is the knowledge and execution of a particular warfare area. Such a relationship allows the commanding officer to maintain focus on crucial issues like maintenance and material management, damage control and self-defense, stationing and maneuvering, and the well-being of his or her crew.

In a recent interview, LCDR Adam Soukup, who serves as the current Major Command and Prospective CO course coordinator at the U.S. Navy Surface Warfare Officer's School (SWOS), relayed that the training curriculum primarily focuses on the non-tactical aspects of command at sea. In addition to the previously mentioned responsibilities, the syllabus includes naval seamanship and ship handling, bridge resource management, and engineering.¹⁷ With the additional requirement for training in legal issues, cyber threats, electronic key management, sexual assault prevention, etc., it is easy to see that there is little room for a commanding officer to gain significant on-the-job expertise in tactics beyond those executed by his or her ship alone. COs must rely on previous experience and pre-deployment training to develop their warfare knowledge, and, depending on their background and timing, some CG "skippers" may arrive with limited AMD experience.¹⁸ When considering the vast responsibility that goes into command, it is hard to imagine additional AMD training being more than an introductory glimpse at all of the capabilities of external platforms encompassed within the mission.

In 2014, CAPT Jim Kilby, a previous Deputy for Ballistic Missile Defense with DDG and CG commanding officer experience, recognized the Navy's "urgent need to assess its approach to Integrated Air and Missile Defense" calling for a "renewed emphasis on innovation

¹⁷ Adam Soukup, Lieutenant Commander, USN, N75, Surface Warfare Officer's School, interview with the author April 29, 2016.

¹⁸ Ibid.

and proficiency.”¹⁹ He focuses on the surface warfare community’s responsibility to gain tactical expertise in the employment of the technological array of our newest material solutions. Standard Missile (SM) advancements, improved Airborne Early Warning capabilities, and 5th generation aircraft make up some of the latest developments in air defense.²⁰ When coupled with Cooperative Engagement Capability (CEC) and the Navy Integrated Fire Control-Counter Air (NIFC-CA), the systems form a complex network of shared targeting information to ensure lethality against current and future threats to the strike group. As CAPT Kilby postulates, all of these leaps in combat application require “efficient and effective command and control (C2) [to] ensure that we employ these new capabilities to their maximum effectiveness, which requires moving beyond the C2 approach under which we currently operate.”²¹ His argument is to provide more training and focus to the CG fleet and its COs; however, this is akin to treating the symptom and not the problem. A better solution would be to give the AMDC role to someone who can focus solely on the job.

Captain Steve Coughlin, a career Surface Warfare Officer (SWO), discussed the following in a 2015 article for the U.S. Naval Institute Proceedings:

[T]he CSG air-defense commander requires a fixation on tactical circumstances and vigilant technical thinking to contend with every nuance and subtlety that this warfare area must address. Overall link management in the force, tracking aircraft during launch and recovery cycles, vectoring combat air patrols, and friendly-force interrogations are just the tip of the iceberg. Simply monitoring the airspace above the designated surveillance area does not begin to describe the complexity of effort. This business is much harder than it looks[.]²²

¹⁹ Jim Kilby, Captain, USN, Deputy for Ballistic Missile Defense, “Surface Warfare: Lynchpin of Naval Integrated Air/Missile Defense” *Center for International Maritime Security* (blog), April 4, 2014, <http://cimsec.org/surface-warfare-lynchpinn-naval-integrated-airmissile-defense/10748>.

²⁰ Ibid.

²¹ Ibid.

²² Coughlin, “Recapitalize the Ticonderoga Class.”

Positioning the primary air-defense weapon, the Aegis weapons system, within the carrier's vital area based on the threat axis and best geometry for maximum depth-of-fire is purely a surface warfare function and must be accomplished by the air-defense commander from a dedicated air-defense ship.²³

CAPT Coughlin succinctly captures the complexity of the mission, and, although he is correct in his opinion that “*positioning* the primary air-defense weapon...is purely a surface warfare function” is correct, the “depth-of-fire” goes beyond just the surface combatants. In the most defensive situations, where the CSG is only able to target incoming threats *after* enemy employment, surface combatants still require over-the-horizon tracking from airborne platforms to take advantage of any depth-of-fire. Targeting a threat beyond the range of its weapons requires airborne intercept with tactical aircraft adding yet another crucial layer to the defense of the CSG. Knowledge of the application and limitations of surface-to-air missile defense systems is only one piece of the puzzle, and a thorough understanding of every participating platform is a current shortfall in AMD training. An adequate defense can only be accomplished by a combined arms approach of early warning detection and tracking, tactical aircraft intercepts, and appropriately prioritized SM employment. The best example of this is the Defensive Counter Air (DCA) mission.

For DCAs, assets falling under each of the three combined arms categories work in conjunction for the AMDC. Although the current CWC construct has never been tested to that depth in a real-world application, CSGs train to large-scale interoperability during the pre-deployment Composite Training Unit Exercise (COMPTUEX). Unfortunately, the evolution lasts only one month. The remaining opportunities to further train to the mission are limited to smaller-scale air defense exercises sporadically placed throughout a deployment. Discussions with a former TOPGUN Airborne Intercept Control (AIC) instructor and multiple Strike

²³ Ibid.

Fighter Tactics Instructors (SFTIs) have revealed that in at least six separate work-up cycles over the last 10 years, planning for the DCA mission has inevitably fallen into the hands of the embarked air wing. In at least one case, a previous CWC considered turning over the AMDC duties to the E-2 Hawkeye squadron CO, who was a Naval Flight Officer (NFO) qualified in AIC. The AMDC role, however, never officially transferred from the CG commanding officer.²⁴ The requirement for improvement is recognized fleet-wide and evidenced by the fact that most CSGs are moving toward placing E-2 NFOs temporarily onboard cruisers to act as liaison officers during concentrated periods of AMD training. As a temporary fix, this practice has already enhanced the interoperability of the defense platforms.²⁵

With threat advancements of air, land, and ship-launched tactical anti-ship missile (TASM) ranges, speed, and numbers, prioritizing assets can only be accomplished by someone well-versed and well-trained in as many layers of defense as possible. A commanding officer alone with three years as a TAO and a crash course in missile defense is not enough to consider that individual adequately trained to integrate with external assets to an adequate level. If the Navy can shift its mindset and view the problem from a different perspective, other options already exist.

²⁴ Martin Fentress, Jr., Commander, USN, former TOPGUN AIC Instructor, message to the author, March 1, 2016.

²⁵ Ian Kimball, Lieutenant, USN, TOPGUN AIC Instructor, e-mail message to author, April 7, 2016.

The Way Forward

*“Men matter most” - Captain Wayne P. Hughes, Jr.*²⁶

In an attempt to bridge the gap of technical and tactical expertise and allow better integration of the Navy’s entire defense system, the surface warfare community has implemented a dedicated training curriculum for its junior officers. The Naval Air and Missile Defense Command is now fielding Weapons and Tactics Instructors (WTI) that gain expertise in “C4I, space operations, Area of Responsibility (AoR) specific defense design analysis, electronic warfare, joint theater air and missile defense, ground based mid-course defense (GMD), joint ballistic missile defense planning and employment, and Hawkeye WTI academics.”²⁷ Hopefully, the intent is to recognize command potential early enough to select the appropriate personnel as WTIs and subsequently groom those individuals for command at sea. This is easier said than done. The selection process considers an additional decade of performance beyond the junior officer ranks to qualify an individual as a CO.

Eventually, a CSG commander will be able to turn to a commanding officer of a cruiser with WTI credentials and select him as the AMDC based upon technical expertise and experience. In the case that the CWC has no cruiser or destroyer “skipper” with such experience, he or she will be able to pull from a cadre of well-trained surface warfare WTIs to fill the AMDC role who would serve without a specific ship of their own. The concept is not a new one. In fact, the Sea Combatant Commander position is commonly filled by the destroyer squadron commander (DESRON) who exercises tactical control (TACON) over the strike

²⁶ Wayne P. Hughes, Jr. USN, Retired, *Fleet Tactics Theory and Practice* (Annapolis: Naval Institute Press, 1987), 24.

²⁷ Matthew Cox, Lieutenant Commander, USN, “Integrated Air and Missile Defense Weapons and Tactics Instructors,” *Surface Warfare Magazine*, July 1, 2014, <http://www.public.navy.mil/surfor/swmag/Pages/Integrated-Air-and-Missile-Defense-Weapons-and-Tactics-Instructor.aspx#.VygNsxG7D6Y>.

group's destroyers, frigates, and sometimes submarines and aircraft all without commanding his or her own ship.

Unfortunately, since the first group of WTIs graduated in 2013, this option will not exist for at least a decade. If the standard desire is to fill the AMDC role with an O-6, that horizon moves out to 15 years at least. In the interim, another option for a CWC currently exists.

When considering the previously discussed complexity of the AMD mission and the various vested partners in the game, the most crucial aspect of successful defense is the ability to bring all of the pieces of the puzzle together into one coherent unity of effort. In short, effective command and control is the backbone of air and missile defense. In 2004, a multi-agent simulation of human behavior in naval air defense conducted at the Naval Postgraduate School revealed some key factors that are instrumental to the mission. Simply stated, "air defense can be divided into three phases: (1) contact detection and reporting; (2) contact classification; and (3) action response."²⁸ In each of these phases, the various inputs to mission success including multi-source integration of radar information, positive identification of contacts, and targeting priority are synthesized and relayed to all contributing nodes of defense. Most importantly, and in very simplified terms, this information is sent to and processed by tactical action officers (TAOs) and the AMDC for various action responses exercised via command by negation. The process is almost entirely dependent on accurate and efficient C2.

Due to the nature of the last three decades, the surface warfare community has been forced to shift its attention to competency in many different competing realms of application. Humanitarian aid and disaster relief, counter-piracy, and strike (via the Tomahawk Land At-

²⁸ Sharif H. Calfee, Lieutenant, USN and Neil C. Rowe, "Multi-Agent Simulation of Human Behavior in Naval Air Defense" (Research Paper, U.S. Naval Postgraduate School, 2004), <http://faculty.nps.edu/ncrowe/oldstudents/calfeepap.htm>.

tack Missile) are a few of the areas that have consumed the focus of commanding officers, ships, and staffs. The only individuals that have continuously and thoroughly trained in proper C2 integration (especially in the realm of AMD) are the airborne early warning NFOs. Their platform, the E-2 Hawkeye, serves as a critical node of command, control, surveillance, and information dissemination. Throughout their careers, E-2 NFOs routinely serve as battle space managers during both training and combat scenarios where they gain expertise in the capabilities of all assets involved in a mission. They develop a thorough understanding of information prioritization as they build and disseminate the tactical picture.

Adding to the credibility of the position is the fact that this career-long training and tactical acumen is further broadened by the E-2's use as an asset for all of the warfare commanders in the CWC construct. The effect of understanding and implementing the commander's intent across various war-fighting domains allows for the efficient choice of targeting solutions and prioritization for offensive and defensive scenarios throughout the battlespace.²⁹ The product of such dedicated, continuous training in the functions and warfare areas within the CWC construct is a knowledgeable professional who possesses a thorough understanding of the requirements, roles, capabilities, and limitations of every potential player in the game of CSG defense.

When considering the elements of the job, both the surface warfare WTI program and the E-2 community provide the CWC with additional flexibility for AMDC selection. Granted, there will still be some additional training to go along with the requirement for an experienced commander to fill the role. As always, training requires time and money, both of which

²⁹ Christopher Moran, Lieutenant Commander, USN and Ryan Heilmann, Lieutenant, USN, "The Elephant in the Room: E-2D and Distributed Lethality," *Center for International Maritime Security* (blog), February 25, 2016, <http://cimsec.org/the-elephant-in-the-room-e-2d-and-distributed-lethality/22350>.

run counter to flexibility when considering the increasing budget concerns that the Navy faces. However, when starting with a more solid foundation of individuals with career-long air defense training, the Navy can shorten the gap of expertise by still using a “wave-top” approach and field incoming AMDCs that can focus on the specific mission set. The result will allow on-the-job training to be dedicated to more advanced aspects of the nuanced mission.

Easier Said Than Done

Some would argue that there is no need to change the current thinking of the Navy’s selection of AMDC. Essentially an argument for the status quo, the valid counterpoints fall into three typical categories. The first is an issue of impact on career paths and the effect it would have on major command selections. The second is where to place the AMDC to accomplish the mission. The final argument is the perceived blurred lines of TACON should the AMDC be anyone other than a CG commanding officer.

Not all major command billets are the same, and one of the crowning achievements for an O-6 surface warfare officer is a designation as a warfare commander. When added to a solid resume of sustained superior performance, selection as an Air and Missile Defense Commander is yet another accomplishment that would set the individual apart from the competition for selection to Rear Admiral Lower Half. The added responsibility and title associated with being a CG CO is a challenge often sought by the best, brightest, and most tactical post-command O-5s. Removing that may encourage some would-be CG selectees to opt for major command on another platform.³⁰ With the understanding that competition breeds excellence, the last thing the Navy wants is to remove prestige from one of its operational positions.

³⁰ Adam Soukup interview.

To be clear, the AMDC role is not and should not be tied to major command, nor should it be considered a required “check in the block” for advancement. There are many tasks and responsibilities that could still be given to a CG “skipper” for war-fighting relevance. For the defense of the CSG alone, the mission of Ballistic Missile Defense Commander is crucial, especially when considering the ever-increasing anti-access/area denial capabilities of near-peer threat nations. Take a step ahead to the future and there are roles and responsibilities for ships in the newly developed “distributed lethality” concept. Exercising TACON of a surface action group would require a commander with tremendous tactical surface warfare expertise, and in such a scenario, a CWC will more than likely turn to his most experienced COs for the task. In summary, sticking with the theme of flexibility, the CWC has options both now and in the future to place relevant collateral warfare duties solely on the shoulders of his or her commanding officers.

The second argument regarding the placement of the AMDC revolves around the limited space availability and the nature of command on surface vessels. It is not a simple matter to add another O-6 on a Ticonderoga-class cruiser. With that individual comes additional staff members that require workspaces and berthing. Even without a support staff, crew members of the CG would still be forced to contend with the unity of command issues that stem from answering to two separate bosses depending on the tactical scenario. If instead, the AMDC were placed on a destroyer, the space issue is exacerbated further simply due to the smaller size of the vessel. The unity of command issues become even more complicated in this scenario because the AMDC will more than likely outrank the O-5 in command of the DDG.

Fortunately, the Navy has proven that this concept is in no way insurmountable. Aircraft carriers have operated for decades with the strike group commander, who is typically an

O-7, remaining onboard a vessel commanded by an O-6. As long as the Navy views its ships simply as a platform used to accomplish the mission, it can find a way to make such a relationship work. The only valid issue, when viewed in that light, is accounting for the space available on our smaller AMD-capable ships.

Turning back to the NWP 3-56, the remaining vessel that typically sails in a CSG is the carrier (CVN). Available space is still an issue although not nearly as much of a factor as the smaller ships. Placing the AMDC onboard the CVN might solve the problem, but there is a trade-off in capability. The CVN is capable, but certainly not the best option when compared to the CGs and DDGs. However, with the ability to synthesize the entire battle groups' sensors and information, the maritime operational picture is adequately available if the AMDC were to operate from this platform. In fact, three of the four warfare commanders are already onboard the CVN, which helps in cross-warfare cooperation and adds to the situational awareness of the CWC.

Lastly, a proponent of the status quo could once again turn to the issue of TACON that such an arrangement would cause. One example would be the multi-role nature of the DDGs. With both the AMDC and the DESRON on the CVN, the destroyers fall into a "my two dads" situation.³¹ To whom do they answer? Is the answer to specify a specific mission set at the start of a deployment or to simply swap roles as needed forcing the ships to report to a new warfare commander? Fortunately, there is more to be gained in such a scenario by having all of the warfare commanders on the same ship. Coordination of assets can be accomplished face-to-face between commanders, and if the issue cannot be resolved, it can be raised real-time with the CWC who can then focus the weight of effort as he or she sees fit.

³¹ Adam Soukup interview.

Recommendation

If the CWC selects an AMDC by prioritizing the right people for the job over the commander of the most capable platform, he or she opens up more options to fill an extremely crucial role within the battle group. By using post-command E-2 NFOs in the near term and eventually broadening the selection to IAMD WTIIs, the Navy could begin fielding AMDCs selected from a pool of aptly-qualified, mission-focused experts that enhance the survivability of its high-value assets during future conflicts. The combat power of its ships is a critical consideration for mission accomplishment; however, the most important component for success is its people. After placing the right person in the job, the tactical foundation is set, and the remaining issues of space allocation, shipboard capabilities, and tactical C2 can be overcome through innovative doctrine and focused training.

Conclusion

With expanding roles ranging from humanitarian aid and disaster relief to the distributed lethality of smaller surface action groups, CWCs will need to find innovative means to accomplish missions with ever-decreasing resources. A focused AMDC that is no longer tied to a specific ship provides flexibility to the CWC should the need arise to reallocate the strike group's assets. The ability to shift between DDGs and CGs in specific scenarios provides the freedom for the CWC to alter the weight of effort between various tasks and challenges that the strike group could face. One of the ways to accomplish this is for the Navy to divorce itself from its historical approach of platform-centric AMDC selection.

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